Application No: 09/831,272 Amendment

Response to Final Office Action dated 08/03/2009

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

- 1. (Canceled).
- 2. (Currently amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a pathogen elicitor treatment, a pathogen infection, or both, wherein the promoter comprises:
 - (i) two or more *cis*-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid sequence, or both, wherein said two or more *cis*-acting elements consists of the nucleotide sequence of SEQ ID NO: 11, and
 - (ii) a minimal promoter,

wherein induction of said local gene expression upon the pathogen elicitor treatment and/or the pathogen infection is at least about <u>between</u> 10-fold <u>and 15-fold higher than its activation, if any, by abiotic stress.</u>, the two or more cis-acting elements comprising:

four copies of SEQ ID NO:11;

the combination of one copy of SEQ ID NO:11 followed by one copy of SEQ ID NO:3 or SEQ ID NO:4;

the combination of four copies of SEQ ID NO:11 followed by four copies of SEQ ID NO:3 or SEQ ID NO:4; or

the combination of four copies of SEQ ID NO:7 followed by four copies of SEQ ID NO:11.

3. (Previously presented) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a

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pathogen elicitor treatment, pathogen infection, or both, wherein the promoter comprises:

(i) two or more *cis*-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection induced expression of the nucleic acid sequence, or both, wherein at least one of said two or more *cis*-acting elements consists of the nucleotide sequence of SEQ ID NO: 11, and

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a minimal promoter,

further comprising a *cis*-acting element having the nucleotide sequence selected from the group consisting of: SEQ ID NO: 1 and SEQ ID NO: 2.

4-7. (Canceled)

(ii)

- 8. (Currently amended) The chimeric promoter of claim 2, 3, 42, 43, 47-or, 49, <u>51</u> or <u>52</u>, wherein at least two of said *cis*-acting elements are separated by a spacer of between about 4 to 10 base pairs.
- 9. (Currently amended) The chimeric promoter of claim 2, 3, 42, 43, 47-or, 49, <u>51</u> or <u>52</u>, wherein at least two of said two or more *cis*-acting elements are separated by a spacer of between about 50 to 1000 base pairs.

10-21. (Canceled)

22. (Previously presented) An isolated *cis*-acting element sufficient to direct pathogen-elicitor-specific expression, pathogen-infection-specific expression, or both, of an operably linked nucleic acid, wherein the element consists of the nucleotide sequence of SEQ ID NO: 11.

23-38. (Canceled)

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39. (Currently amended) A promoter obtainable by a method of rendering a gene responsive to pathogens, wherein the method comprises inserting at least one *cis*-acting element sufficient to direct pathogen-elicitor-induced expression, pathogen-infection induced expression, or both, of an operably linked nucleic acid, into the promoter of said gene, wherein

(1) induction of local gene expression in plants upon <u>the pathogen</u> elicitor treatment, <u>the</u> pathogen infection, or both, is between 10-fold and 15-fold and wherein the at least one *cis*-element comprises

four copies of SEQ ID NO:11;

the combination of one copy of SEQ ID NO:11 followed by one copy of SEQ ID NO:3 or SEQ ID NO:4;

the combination of four copies of SEQ ID NO:11 followed by four copies of SEQ ID NO:3 or SEQ ID NO:4; or

the combination of four copies of SEQ ID NO:7 followed by four copies of SEQ ID NO:11;SEQ ID NO: 11, or

(2) induction of local gene expression in plants upon the pathogen elicitor treatment, the pathogen_infection, or both is at least about <u>between 1015</u>-fold <u>higher than its activation</u>, if any, <u>by abiotic stress and 81-fold</u> and the at least one *cis*-acting element comprises

two copies of SEQ ID NO: 11;, or

a combination of one copy of SEQ ID NO: 11 and one copy of SEQ ID NO: 7; the combination of four copies of SEQ ID NO:11 followed by four copies of SEQ

the combination of two copies of SEQ ID NO:3 or SEQ ID NO:4 followed by two copies of SEQ ID NO:11; or

(3) the at least one *cis*-acting element comprises

at least one copy of the nucleotide sequence of SEQ ID NO: 11 and at least one copy of the nucleotide sequence of SEQ ID NO:1 or 2;

at least one copy of the nucleotide sequence of SEQ ID NO: 11 and at least one copy of the nucleotide sequence of SEQ ID NO:7;

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two copies of the nucleotide sequence of SEQ ID NO: 11 and two copies of the nucleotide sequence of SEQ ID NO: 7; or

at least one copy of the nucleotide sequence of SEQ ID NO: 11 and at least one copy of the nucleotide sequence of SEQ ID NO:3 or 4; and

(4) the promoter comprises:

- (i) two or more *cis*-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid, or both, wherein at least one of the two or more *cis*-acting elements consists of the nucleotide sequence of SEQ ID NO:11, and
- (ii) a minimal promoter,

 further comprising a *cis*-acting element having the nucleotide sequence selected from the
 group consisting of SEQ ID NO:5, 6, 8, 9, 10, 12 and 13; or

 (5) the promoter consists of:
- (i) two *cis*-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid, or both, wherein one of the two *cis*-acting elements consists of the nucleotide sequence of SEQ ID NO:11, and
 - (ii) a minimal promoter.

40-41. (Canceled)

- 42. (Currently amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by <u>a</u> <u>pathogen</u> elicitor treatment, <u>a</u> pathogen infection, or both, wherein the promoter comprises:
 - (i) two or more *cis*-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid sequence, or both, wherein at least one of said two or more *cis*-acting elements comprise at least one copy of the nucleotide sequence of SEQ ID NO: 11, and at least one copy of the nucleotide sequence of SEQ ID NO: 7,

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and

- (ii) a minimal promoter.
- 43. (Previously Presented) The chimeric promoter according to claim 42, wherein the two or more *cis*-acting elements comprise two copies of the nucleotide sequence of SEQ ID NO: 11 and two copies of the nucleotide sequence of SEQ ID NO: 7.
- 44. (Currently amended) A recombinant gene comprising the chimeric promoter of claim 2, 3, 8, 9, 39, 42, 43, 47, or 49, 50, 51, or 52.
- 45. (Currently amended) A vector comprising the chimeric promoter of claim 2, 3, 8, 9, 39, 42, 43, 47, or 49, 50, 51, or 52.
- 46. (Currently amended) A method for the production of transgenic plants, transgenic plant cells or transgenic plant tissues, wherein the method comprises comprising introducing a chimeric promoter according to claim 2, 3, 8, 9, 39, 42, 43, 47, or 49, 50, 51, or 52, into the genome of plants, plant cells or plant tissues to produce the transgenic plants, the transgenic plant cells and/or the transgenic plant tissue.
- 47. (Currently Amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by elicitor treatment, pathogen infection, or both, wherein the promoter comprises:
- (i) two or more *cis*-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection induced expression of the nucleic acid sequence, or both, and
- (ii) a minimal promoter, wherein induction of said local gene expression upon the pathogen elicitor treatment and/or pathogen infection is at least about between 15-fold and 81-10-fold higher than its activation, if any, by abiotic stress, the two or more *cis*-acting elements comprising:

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two copies of SEQ ID NO: 11, or;

the combination of one copy of SEQ ID NO: 11 followed by one copy of SEQ ID

NO: 7, or;

the combination of four copies of SEQ ID NO: 11 followed by four copies of

SEQ ID NO: 7; or

the combination of two copies of SEQ ID NO:3 or SEQ ID NO:4 followed by two

copies of SEQ ID NO:11.

48. (Canceled)

- 49. (Currently amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by <u>a</u> pathogen elicitor treatment, a pathogen infection, or both wherein, the promoter comprises:
 - (i) two or more *cis*-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection- induced expression of the nucleic acid sequence, or both, wherein at least one of the two or more *cis*-acting elements consists of the nucleotide sequence of SEQ ID NO: 11, and
 - (ii) a minimal promoter,

further comprising a *cis*-acting element having the nucleotide sequence selected from the group consisting of: SEQ ID NO: 3 and SEQ ID NO: 4.

- 50. (New) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a pathogen elicitor treatment, a pathogen infection, or both, wherein the promoter consists of:
- (i) a *cis*-acting element sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid, or both, wherein the *cis*-acting element consists of the nucleotide sequence of SEQ ID NO: 11, and
 - (ii) a minimal promoter,

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wherein induction of said local gene expression upon the pathogen elicitor treatment and/or the pathogen infection is between 10-fold and 15-fold.

- 51. (New) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a pathogen elicitor treatment, a pathogen infection, or both wherein, the promoter comprises:
- (i) two or more *cis*-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid, or both, wherein at least one of the two or more *cis*-acting elements consists of the nucleotide sequence of SEQ ID NO:11, and
- (ii) a minimal promoter, further comprising a *cis*-acting element having the nucleotide sequence selected from the group consisting of SEQ ID NO:5, 6, 8, 9, 10, 12 and 13.
- 52. (New) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a pathogen elicitor treatment, a pathogen infection, or both wherein, the promoter consists of:
- (i) two *cis*-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid, or both, wherein one of the two *cis*-acting elements consists of the nucleotide sequence of SEQ ID NO:11, and
 - (ii) a minimal promoter.